

Remarks

The Applicants are pleased to note the Examiner's indication on page 4 of the Office Action, to the effect that at least certain claims pertain to allowable subject matter. The Applicants believe that this Amendment places all claims in condition for allowance.

Claims 1-66 are pending in the application following entry of this Amendment. Claims 1, 2, 25, 31, 32, 56, 60, and 65 have been amended. Claim 66 has been added. Claims 1, 60, and 65 are the only independent claims pending.

No new matter is added by the amendments and additions made herein.

Support for amendments to the specification is found as follows.

In each of paragraphs [0013] and [0046], the synonym "methacrylate" has been substituted in place of "alpha-methyl acrylate" as explained below.

In paragraph [0013], the viscosity unit "Poise" has been substituted in place of "centipoise." This amendment corrects an error that is apparent on its face to a skilled artisan in this field. The specification discloses, in paragraph [0013], that a preferred range of viscosities for the grouts described in the application is 240-880 centipoise. As shown in the enclosed "Viscosity Table" (web site www.vp-scientific.com/Viscosity_Tables.htm), 1 Poise is equivalent to 100 centipoise. The table also discloses the viscosity (in centipoise) of common materials. From the table, it is apparent that viscosities of 240-880 centipoise correspond to common motor oils and similar materials. A skilled artisan in this field would immediately recognize that this range of viscosities is not appropriate for grouts (i.e., that these viscosity values are far too low), particularly in view of the disclosure in the specification (page 1, lines 15-17) that common grouts are creamy, that they are workable (see paragraph [0033]), and that they have viscosities suitable for packaging into tubes, cartridges, and other containers (see page 8, lines 17-28). A skilled artisan would immediately recognize that grouts should have a viscosity more nearly analogous to that of ketchup or mustard (which, according to the enclosed table, have viscosities of about 50,000 and 70,000 centipoise, respectively - or 500-700 Poise). Based on this information, a skilled artisan in this field would immediately recognize that the

reference in the specification and claims to a viscosity of 240-880 "centipoise" is erroneous, and that the Applicants intended "centipoise" to read "Poise."

Support for amendments to the claims is found in the specification as follows.

The amendment to independent claims 1, 60, and 65 is supported in the specification, for example at page 11, lines 18 and 19.

The amendment to claim 2 merely corrects the antecedent basis for the recited resin.

The amendment to claim 25 merely substitutes the synonym "methacrylate" in place of "alpha-methyl acrylate" as explained below.

Claims 31 and 32 have been amended to substitute "Poise" in place of "centipoise," as explained above.

Removal of the word "about" from claim 31 is supported by claim 31, as filed.

The amendment to claim 56 is supported in the specification, for example at page 21, lines 26-28.

Newly added claim 66 is supported in the specification, for example at page 10, lines 27 and 28.

Each of the Examiner's objections or rejections is addressed below in the order they were presented in the Office Action dated 28 December 2004.

Objections to the Specification

On page 2 of the Office Action, the Examiner objects to the specification on the grounds that "air-dryable polymeric resins do not exist." The Applicants do not understand the Examiner's concern. By way of example, the RHOPLEX® family of products described in the application as suitable resins clearly "exist" and are commercially available. Many other suitable resins are commercially available.

To the extent that the Examiner believes that the term "air-dryable polymeric resin" is not a standard term of art in this technical field, the Applicants remind the Examiner that patent applicants are permitted to act as their own lexicographer. The "air-dryable" characteristics of

the polymeric resin are discussed, for example, in paragraphs [0048] to [0050] of the application. Regardless of whether such compositions are commonly referred to as "air-dryable" in this technical field (the Applicants believe that they are), the Applicants respectfully believe that this portion of the specification sufficiently describes the claimed subject matter that a skilled artisan in this field is able to understand the polymeric resins that are referred to. If the Examiner believes that this discussion does not alleviate his concern regarding the existence of air-dryable polymeric compositions, the Applicants respectfully request that the Examiner explain his concern in fuller detail, preferably in a telephone call to the Applicants' undersigned representative.

The Examiner objects to the specification on the basis that "acrylic latex polymers" also do not exist. This assertion puzzles the Applicants, who believe that this is a commonly-used term in this technical field. As evidence of this, the Applicants include product information gathered from the World Wide Web for BASF ACRONAL OPTIVE®, BOSTIK® CHEM-CALK® 600, PHENOSEAL® caulk, and Crown Diamond PRIVELEGE™ primer-sealer and undercoater. The technical information distributed for each of these products describes "acrylic latex polymer" as at least one ingredient of the compositions. Furthermore, each of these references indicates that the product can be dried. The Applicants respectfully contend that the term "acrylic latex polymers" is an art-accepted phrase and that use of this term does not render the specification objectionable.

The Examiner suggests that "acrylic polymer latices" might be a suitable replacement for the term "acrylic latex polymers." Regardless of whether the two terms are synonymous, the Applicants respectfully contend that the term used in the specification is understandable to a skilled artisan in this field. The Applicants are required to make the specification understandable to a skilled artisan, regardless of how the Examiner might have written the application were the Examiner the Applicant. The Applicants appreciate the Examiner suggesting the alternative term, but believe that substitution of the suggested term in place of "acrylic latex polymer" is unnecessary in view of the art-accepted status of this term. The

Applicants also believe that "latices" suggests a level of order to the acrylic latex polymer chains that is not required by the Applicants' invention.

The Examiner objects to use of the term "alpha-methyl acrylate" polymers. As the Examiner suggested, this term refers to methacrylate polymers. Enclosed with this Amendment are chemical database entries (from the publicly-available "EnvironmentalChemistry.com" database) for methyl and ethyl methacrylate, which indicate that "methyl alpha-methyl acrylate" and "ethyl alpha-methyl acrylate" are corresponding synonyms. Although the Applicants do not believe that this change is necessary to eliminate any uncertainty, the Applicants have replace "alpha-methyl acrylate" with "methacrylate" at each instance in the specification, including claim 25.

The Examiner objects that antecedent basis for claims 26, 42, 44, 48-54, 56, and 61 cannot be found in "the specification." Each of these claims is an originally-filed claim, and has not been amended or added after filing. The Examiner appears to overlook the fact that the claims are considered part of "the specification." MPEP §608.01(I). The Applicants respectfully contend that the subject matter recited in each of the claims to which the Examiner objects is self-explanatory on the face of the corresponding claim, and that when the Examiner reconsiders this objection in view of the fact that the claims form part of the specification, he should conclude that the subject matter recited in those claims does not require "antecedent basis" in some other part of the specification. The Applicants respectfully request that the Examiner reconsider this objection in view of these facts.

Rejection Pursuant to 35 U.S.C. § 112, Second Paragraph

In items 3-5 of the Office Action, the Examiner rejects claims 1-65 on the grounds that the claims are indefinite. The Applicants respond separately to the Examiner's comments about each purportedly indefinite term below.

The Examiner rejects claims 1, 2, 60, and 65 and claims depending therefrom, based on the Examiner's contention that "air dryable polymeric resins do not exist." The comments made above relative to the Examiner's objection to the specification are equally relevant here. The "air-dryable" characteristics of the polymeric resin are disclosed, for example, in paragraphs [0048] to [0050] of the application. The Applicants respectfully contend that a skilled artisan in this field would have no difficulty understanding that an "air dryable polymeric resin" is simply one which will dry (or cure -- see page 10, line 4, of the specification) following its application as a grout in contact with air. The Applicants respectfully request reconsideration of this portion of the indefiniteness rejection and withdrawal thereof by the Examiner.

The Examiner rejects claims 24-26, based on the Examiner's contention that "acrylic latex polymers" do not exist. The comments made above relative to the Examiner's objection to the specification are equally relevant here. The enclosed publicly-available product information sheets demonstrate that the term "acrylic latex polymer" is in common usage and is understood by skilled artisans in this field. The Applicants respectfully contend that use of this term in the claims does not render them indefinite and request that the Examiner reconsider and withdraw the rejection as applied to use of this term.

The Examiner rejects claim 25, based on the Examiner's contention that use of "alpha-methyl acrylate" polymers renders the claim indefinite. As demonstrated in the enclosed EnvironmentalChemistry.com database entries, "alpha-methyl acrylate" and "methacrylate" are used synonymously. The Applicants have amended claim 25 to alleviate the Examiner's concern, and this portion of the rejection is believed to be moot.

The Examiner rejects claims 1-65, based on the apparent contention that any claim that includes the word "about" is indefinite. The Applicants have deleted the word "about" from claim 31. In all other instances in the claims, the word "about" refers to Mohs hardness.

As indicated in section 3.6.1 of the enclosed "Material Hardness" reference obtained from the Word Wide Web, Mohs hardness is "a rough measure of the resistance of a smooth

surface to scratching or abrasion." Skilled artisans recognize that Mohs hardness is an approximate property, and that measurements more precise than "about" a certain Mohs hardness value cannot be accurately made.

A skilled artisan understands Mohs hardness to indicate relative hardness. For example, as disclosed in the specification, calcite has a Mohs hardness of "approximately 2.5" (page 13, lines 6-7, of the specification), and that steels have various Mohs hardness values, generally "at least about 6.5" (page 12, line 30, through page 13, line 1, of the specification). A skilled artisan would recognize that removing the term "about" from a Mohs hardness measurement is meaningless, because Mohs hardness values are simply not determinable with a high degree of precision. Nonetheless, skilled artisans understand the meanings of Mohs hardness values, and the ordinary degree of precision associated with their measurement. A skilled artisan understands the meaning of terms such as "a Mohs hardness less than about 6.5" and the claims are therefore not indefinite.

The Examiner cites the *Amgen v. Chugai* case relating to indefiniteness of claims that include words of degree. Unlike here, in the *Amgen* case, there was close prior art and no indication in the prior art as to the possible boundaries to which the words of degree would pertain. In contrast, the Mohs hardness scale is based on ten minerals to which Mohs hardness values 1-10 are assigned (see the enclosed "Materials Hardness" reference), and it is clear to a skilled artisan that a Mohs hardness value between any two Mohs hardness values cannot in any event be greater than the next higher or less than the next lower Mohs hardness values.

In view of the Applicants' deletion of the word "about" from claim 31 and the arguments presented above relating to the precision possible for Mohs hardness measurements, the Applicants respectfully request that the Examiner reconsider and withdraw the rejection of claims 1-65 based on use of the word "about."

Rejection Pursuant to 35 U.S.C. § 103(a) Over Caldwell in View of Any of Four Patents

In items 6-9 of the Office Action, the Examiner rejects claims 1, 6-19, 21, 22, 24, 25, 27, 28, 31-33, and 40-65 over Caldwell (US Patent no. 6,103,360) in view of one or more of Dassetto (US Patent no. 2,895,325), Pfingsten (US Patent no. 3,785,568), Stern (US Patent no.

5,524,798), and Taylor (US Patent no. 6,291, 536). In the Examiner's view, Caldwell discloses a composition that includes different-sized fillers, a binder, and water. Each of Dassetto, Pfingsten, Stern, and Taylor discloses apparatus suitable for applying the composition disclosed in Caldwell to a surface. The Examiner contends that it is possible to derive a composition claimed in this application from the disclosure of Caldwell, and that the other references disclose enough information that a skilled artisan could make the claimed container and perform the claimed methods. In the Examiner's view, recitation in the preamble of the independent claims that the composition is a "grout" composition does not affect patentability.

The Applicants disagree that the recitation that the composition is a "grout" composition is irrelevant to patentability. The composition in Caldwell is a "coating," which need only bind the particles in Caldwell's composition to a ceiling tile. In contrast, a grout cannot merely bind particles to a surface, but instead must (as recited in claim 1, as originally filed) bind the fillers of the grout to one another, i.e., to make a common mass that is capable of filling a hole or crack (i.e., what grouts do). For that reason, a skilled artisan in this field would not look to the teachings of Caldwell and the other cited reference to formulate a grout. For this reason, the Applicants respectfully contend that the preamble should be considered for patentability purposes and that the references cited by the Examiner should be considered to relate to a non-analogous art. For that reason alone, the references identified by the Examiner cannot be cited as prior art against the claims in this application and the Examiner's obviousness rejection should be withdrawn.

The Applicants have also amended all of the independent claims to recite that the grout composition includes "at least 15% by weight of an air-dryable polymer resin." Neither Caldwell alone, nor Caldwell combined with the other references cited by the Examiner discloses or suggests this property for the ceiling tile-coating compositions disclosed in Caldwell. The Applicants believe that this recitation alone renders all of the claims patentable over the art cited by the Examiner, and request that the Examiner reconsider and withdraw the rejection of claims 1, 6-19, 21, 22, 24, 25, 27, 28, 31-33, and 40-65 over Caldwell in view of one or more of the other cited references.

Summary

For the reasons set forth above, the Applicant respectfully contends that each of claims 1-66 is in condition for allowance. Reconsideration and withdrawal of each of the Examiner's rejections are requested, and the Examiner is requested to issue a Notice of Allowance at the earliest possible time.

Respectfully submitted,

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(Date)

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Enclosures: Petition for a Three-Month Extension of Time
Viscosity Tables (table of viscosities of common materials)
Product Information: BASF ACRONAL OPTIVA® 130
Product Information: BOSTIK® CHEM-CALK® 600
Product Information: PHENOSEAL®
Product Information: Crown Diamond PRIVILEGE®
EnvironmentalChemistry.com Database Entry: Ethyl Methacrylate
EnvironmentalChemistry.com Database Entry: Methyl Methacrylate

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